# SUGAR GROVE AREA OFFICE BUNDLED SITES CHARACTERIZATION REPORT/ RESPONSE ACTION WORK PLAN

FAIRFIELD COUNTY, OHIO

29 March 2000

REVISION NO. 1 6 September 2000

# Prepared For COLUMBIA GAS TRANSMISSION

By: CIVIL & ENVIRONMENTAL CONSULTANTS, INC AND ENVIRONMENTAL STANDARDS, INC. <u>Site Background Concentration</u> – Three background soil samples (SGA-ASU009-70001 through SGA-ASU011-70001) were collected during the site characterization. All three samples were analyzed for Table 1 metals, PAHs, PCBs, and VOCs. PCBs, VOCs, and PAHs were not detected. Five Table 1 metals were detected. Background concentrations for these five metals have been calculated in Appendix H (Background Worksheet) and are listed below:

- Arsenic 37.4 mg/kg
- Barium 127.3 mg/kg
- Cadmium 22.1 mg/kg
- Chromium 18 mg/kg
- Nickel 28.8 mg/kg

<u>PRA No. 4 - Former Rush Creek Dump</u> – Soil boring SGA-ASB005 located in the suspected center of this former dump had detectable characterization constituents from subsurface samples greater than the CALs and/or site background concentrations. Sample SGA-ASB005-70001 (2.0 feet bgs) had six constituents detected greater than the CALs and/or site background concentrations, and sample SGA-ASB005-70002 (5.0 feet bgs) had eleven constituents greater than the CALs and/or site background concentrations.

Sample results for CAL/background exceedances for SGA-ASB005-70001 are as follows:

•	PCB	s Detected:	1.8 mg/kg	CAL	1.0 mg/kg
•	PAH	s Detected:			
	- - - -	benzo(a)anthracene benzo(a)pyrene benzo(b)fluoranthene benzo(k)fluoranthene indeno(1,2,3-c,d)pyrene	11 mg/kg 5.9 mg/kg 9.9 mg/kg 11 mg/kg 1.6 mg/kg	CAL CAL CAL	0.87 mg/kg 0.087 mg/kg 0.87 mg/kg 8.7 mg/kg 0.87 mg/kg

Sample results for CAL/background exceedances for SGA-ASB005-70002 are as follows:

•	PCBs	Detected:		12 mg	/kg	CAL	1.0 mg/kg
•	PAHs	Detected:					
	- - - -	benzo(a)anthr benzo(a)pyren benzo(b)fluor benzo(k)fluor chrysene ideno(1,2,3-c,	ne anthene anthene	150 m 110 m 120 m 75 mg 130 m 86 mg	g/kg g/kg /kg g/kg	CAL CAL CAL CAL CAL	0.87 mg/kg 0.087 mg/kg 0.87 mg/kg 8.7 mg/kg 87.0 mg/kg 0.87 mg/kg
•	Metals	s Detected:					
	- - -	Antimony Arsenic Cadmium Lead	2,140 mg/kg 38.9 mg/kg 113 mg/kg 1,650 mg/kg	CAL CAL CAL	31.0 mg/kg 0.43 mg/kg 39.0 mg/kg 400.0 mg/kg	BG BG	37.4 mg/kg 22.0 mg/kg

PRA No. 5 - Former Dump (Beneath Current Telecommunications Building) — Soil borings SGA-ASB008 and SGA-ASB011 were located in opposite quadrants of a suspected dump beneath the current telecommunications building (Figure 3). Each boring had detectable characterization constituents greater than the CALs and/or site background concentrations. Soil sample SGA-ASB008-40001 (0 - 1.0 feet bgs) had five constituents detected greater than the CALs and/or site background concentrations; sample SGA-ASB011-40001 (0 - 1.0 feet bgs) had two constituents greater than the CAL and/or background; and sample SGA-ASB011-70001 (2.5 feet bgs) had five constituents greater than the CALs and/or site background concentrations.

# **4.3 PRAs Requiring Further Evaluation**

Based on the results of this characterization effort, the following PRAs are proposed for further evaluation:

- PRA #4 Former Rush Creek Dump
- PRA #5 Former Dump (Beneath Current Telecommunications Building)
- PRA #12 Dry Well

# **4.4 Evaluation of Selected PRAs and Site Areas**

A detailed description of the risk-based evaluation process is provided in Appendix F.

# 4.4.1 Evaluation of Soil

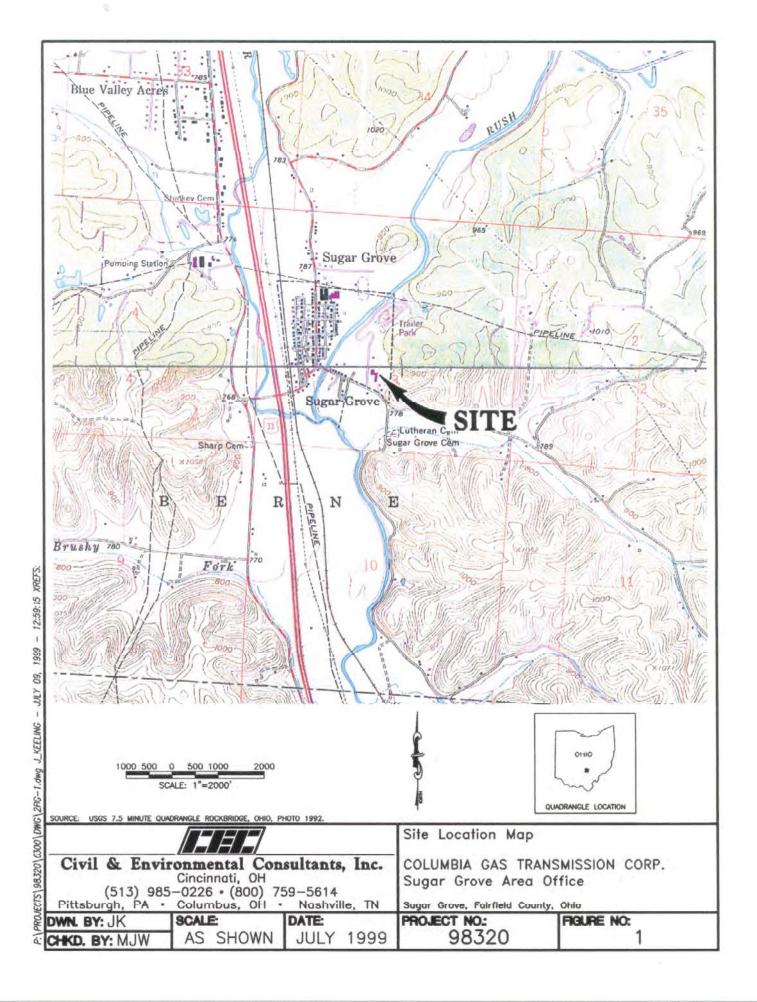
The first two steps of the site evaluation process depicted in Figure 1 of Appendix F, comparison to residential CALs was conducted in Section 3. The next step of the process is to evaluate the site data using industrial Response Action Levels (RALs), where appropriate. Access to the Sugar Grove site is not restricted, and residences are close by. Therefore, the site will not be evaluated under an industrial use scenario.

The fourth step of the process is to calculate site concentrations (as described in Section 3.1 and in detail in Appendix F). Because unrestricted access is assumed under the future use scenario, site concentrations for each relevant constituent and medium have been calculated using all data for the site. The calculations are presented in Appendix H.

Site concentrations in soil for the remaining constituents identified in the PRAs listed in section 4.3 are as follows:

	Site	
Constituent	Concentration (mg/kg)	CAL (mg/kg)
<ul> <li>Antimony</li> </ul>	27.8	31.0
<ul> <li>Arsenic</li> </ul>	14.5	0.43
• Cadmium	21.8	39.0
• Lead	91.4	400.0
• Benzo(a)anthracene	4.2	0.87
• Benzo(a)pyrene	3.2	0.087
• Benzo(b)fluoranthene	4.7	0.87
• Benzo(k)fluoranthene	3.0	8.7
• Chrysene	4.2	87.0
• Dibenzo(a,h)anthracene	0.7	0.087
• Indeno(1,2,3-c,d)pyrene	2.5	0.87

Site concentrations for Antimony, Cadmium, Lead, Benzo(k)fluoranthene, and Chrysene in soil are less than the residential CALs. Therefore, a response action is not recommended for these constituents. However, the site concentrations of Arsenic, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene and Indeno(1,2,3-c,d)pyrene in soil are greater than the CALs, and a response action is recommended for these constituents.



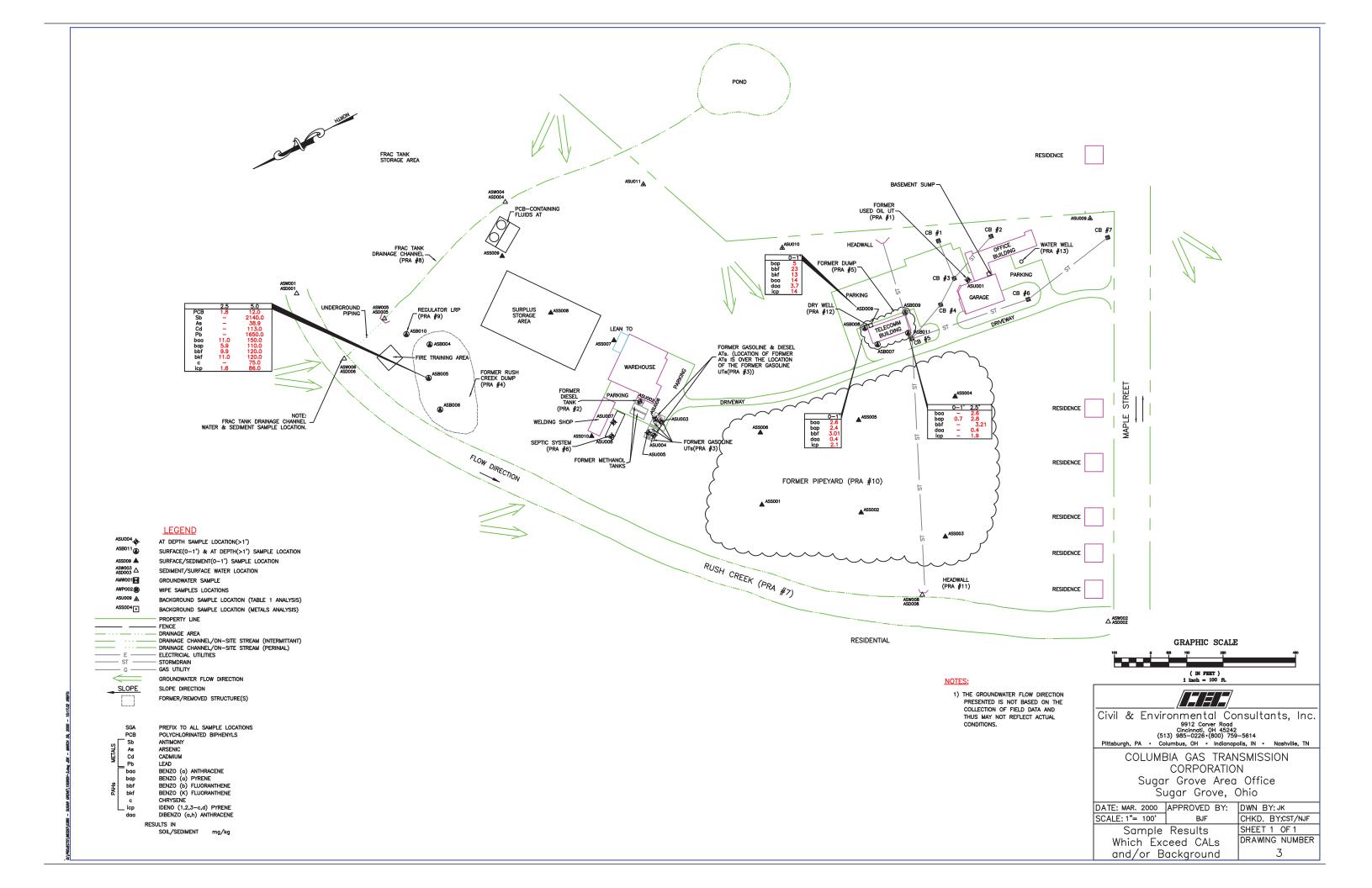


Table 4
Summary of Analytical Results

		PRA	0					
		PRA Description	RANDOM PCB					
		Sample Type	Normal Sample					
		Sample Id	SGA-ASS007-40001		SGA-ASS008-40001		SGA-ASS009-40001	
		Depth - ft bgs	06/24/98		05		05 06/24/98	
		Collected Date			06/24/98			
		Laboratory			Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmental Cons.	
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000						
	ETHYL BENZENE	7800						
	XYLENES (TOTAL)	1000000						
	ACETONE	7800						
BNA	NAPHTHALENE	1600						
	ACENAPHTHENE	4700						
	FLUORENE	3100						
	PHENANTHRENE	23000						
	ANTHRACENE	23000						
	FLUORANTHENE	3100						
	PYRENE	2300						
	BENZO(A)ANTHRACENE	.87						
	CHRYSENE	87						
	BENZO(B)FLUORANTHENE	.87						
	BENZO(K)FLUORANTHENE	8.7						
	BENZO(A)PYRENE	.087						

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA	0					
		PRA Description	RANDOM PCB					
		Sample Type	Normal Sample					
		Sample Id	SGA-ASS007-40001			SGA-ASS009-40001		
		Depth - ft bgs	05				05 06/24/98	
		Collected Date	Recra Amherst Rec		06/24/98			
		Laboratory			Recra Amherst		Recra Amherst	
		Sample Collector			Civil + Environmen	tal Cons.	Civil + Environmental Cons.	
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087						
	BENZO(GHI)PERYLENE	2300						
	INDENO(1,2,3-C,D)PYRENE	.87						
P/PCB	AROCLOR-1254	1	0.40		ND		ND	
METAL	ANTIMONY, TOTAL	31						
	BARIUM, TOTAL	5500						
	BERYLLIUM, TOTAL	160						
	CADMIUM, TOTAL	39						
	CHROMIUM, TOTAL	230						
	LEAD, TOTAL	400						
	NICKEL, TOTAL	1600						
	SILVER, TOTAL	390						
	MERCURY, TOTAL	20						
	ARSENIC, TOTAL	.43						

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description			TABLE 1 BACKGE	ROUNDS		
		Sample Type			Normal Sample			
		Sample Id	SGA-ASS010-40001	SGA-ASS010-40001		SGA-ASU009-70001		1
		Depth - ft bgs			5 - 5		5 - 5	
		Collected Date			06/24/98		06/24/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000			ND		ND	
	ETHYL BENZENE	7800			ND		ND	
	XYLENES (TOTAL)	1000000			ND		ND	
	ACETONE	7800			ND		ND	
BNA	NAPHTHALENE	1600			ND		ND	
	ACENAPHTHENE	4700			ND		ND	
	FLUORENE	3100			ND		ND	
	PHENANTHRENE	23000			ND		ND	
	ANTHRACENE	23000			ND		ND	
	FLUORANTHENE	3100			ND		ND	
	PYRENE	2300			ND		ND	
	BENZO(A)ANTHRACENE	.87			ND		ND	
	CHRYSENE	87			ND		ND	
	BENZO(B)FLUORANTHENE	.87			ND		ND	
	BENZO(K)FLUORANTHENE	8.7			ND		ND	
	BENZO(A)PYRENE	.087			ND		ND	

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description			TABLE 1 BACKGE	ROUNDS		
		Sample Type			Normal Sample			
		Sample Id	SGA-ASS010-40001		SGA-ASU009-70001	l	SGA-ASU010-70001	
		Depth - ft bgs	06/24/98		5 - 5		5 - 5 06/24/98	
		Collected Date			06/24/98			
		Laboratory			Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	al Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087			ND		ND	
	BENZO(GHI)PERYLENE	2300			ND		ND	
	INDENO(1,2,3-C,D)PYRENE	.87			ND		ND	
P/PCB	AROCLOR-1254	1	ND		ND		ND	
METAL	ANTIMONY, TOTAL	31			11.8 R		11.8 R	
	BARIUM, TOTAL	5500			76.6		100	
	BERYLLIUM, TOTAL	160			ND		ND	
	CADMIUM, TOTAL	39			12.6		13.9	
	CHROMIUM, TOTAL	230			9.9 J-		11.9 J-	
	LEAD, TOTAL	400			ND		ND	
	NICKEL, TOTAL	1600			16.5		21.0	
	SILVER, TOTAL	390			ND		ND	
	MERCURY, TOTAL	20			ND		ND	
	ARSENIC, TOTAL	.43			11.9	X	13.8	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			1		2		
		PRA Description			PRA#1-500 GAL FO	ORMER USEI	PRA#2-2000 GAL F	ORMER DIES	
		Sample Type			Normal Sample		Normal Sample		
		Sample Id	SGA-ASU011-70001		SGA-ASU001-70001	[	SGA-ASU002-70001		
		Depth - ft bgs			0 - 0		0 - 0		
		Collected Date			06/25/98		06/25/98		
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst		
		Sample Collector	Collector Civil + Environmental Cons.		Civil + Environmen	tal Cons.	Civil + Environment	tal Cons.	
		Result Units	MG/KG		MG/KG	MG/KG			
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*	
VOA	TOLUENE	16000	ND		ND		0.018		
	ETHYL BENZENE	7800	ND		ND		ND		
	XYLENES (TOTAL)	1000000	ND		ND		ND		
	ACETONE	7800	ND						
BNA	NAPHTHALENE	1600	ND		ND		ND		
	ACENAPHTHENE	4700	ND		ND		ND		
	FLUORENE	3100	ND		ND		ND		
	PHENANTHRENE	23000	ND		ND		ND		
	ANTHRACENE	23000	ND		ND		ND		
	FLUORANTHENE	3100	ND		ND		ND		
	PYRENE	2300	ND		ND		ND		
	BENZO(A)ANTHRACENE	.87	ND		ND		ND		
	CHRYSENE	87	ND		ND		ND		
	BENZO(B)FLUORANTHENE	.87	ND		ND		ND		
	BENZO(K)FLUORANTHENE	8.7	ND		ND		ND		
	BENZO(A)PYRENE	.087	ND		ND		ND		

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			1		2	
		PRA Description			PRA#1-500 GAL FO	ORMER USED	PRA#2-2000 GAL F	ORMER DIES
		Sample Type			Normal Sample		Normal Sample	
		Sample Id	SGA-ASU011-70001		SGA-ASU001-70001		SGA-ASU002-70001	
		Depth - ft bgs	5 - 5		0 - 0		0 - 0	
		Collected Date	06/24/98		06/25/98		06/25/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	al Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		ND	
	BENZO(GHI)PERYLENE	2300	ND		ND		ND	
	INDENO(1,2,3-C,D)PYRENE	.87	ND		ND		ND	
P/PCB	AROCLOR-1254	1	ND		ND			
METAL	ANTIMONY, TOTAL	31	11.3 R					
	BARIUM, TOTAL	5500	14.4					
	BERYLLIUM, TOTAL	160	ND					
	CADMIUM, TOTAL	39	6.6					
	CHROMIUM, TOTAL	230	5.2 J-					
	LEAD, TOTAL	400	ND		ND			
	NICKEL, TOTAL	1600	ND					
	SILVER, TOTAL	390	ND					
	MERCURY, TOTAL	20	ND					
	ARSENIC, TOTAL	.43	30.4	X				

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

3

PR A

		PRA	3					
		PRA Description	PRA#3-FOUR 2000	GAL FORMI	ER GASOLINE TAN	KS		
		Sample Type	Normal Sample					
		Sample Id	SGA-ASU003-70001	-	SGA-ASU004-70001		SGA-ASU005-70001	l
		Depth - ft bgs	0 - 0		0 - 0		0 - 0	
		Collected Date	06/25/98		06/25/98		06/25/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG MG/KG		MG/KG			
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	0.015		0.009		0.033	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800						
BNA	NAPHTHALENE	1600	ND		ND		ND	
	ACENAPHTHENE	4700	ND		ND		ND	
	FLUORENE	3100	ND		ND		ND	
	PHENANTHRENE	23000	ND		ND		ND	
	ANTHRACENE	23000	ND		ND		ND	
	FLUORANTHENE	3100	ND		ND		ND	
	PYRENE	2300	ND		ND		ND	
	BENZO(A)ANTHRACENE	.87	ND		ND		ND	
	CHRYSENE	87	ND		ND		ND	
	BENZO(B)FLUORANTHENE	.87	ND		ND		ND	
	BENZO(K)FLUORANTHENE	8.7	ND		ND		ND	
	BENZO(A)PYRENE	.087	ND		ND		ND	

#### Notes:

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA	3					
		PRA Description	PRA#3-FOUR 2000	GAL FORMI	ER GASOLINE TAN	KS		
		Sample Type	Normal Sample					
		Sample Id	SGA-ASU003-70001		SGA-ASU004-70001	[	SGA-ASU005-70001	
		Depth - ft bgs	0 - 0		0 - 0		0 - 0	
		Collected Date	06/25/98		06/25/98		06/25/98	
		Laboratory	Recra Amherst	Recra Amherst F			Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	al Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		ND	
	BENZO(GHI)PERYLENE	2300	ND		ND		ND	
	INDENO(1,2,3-C,D)PYRENE	.87	ND		ND		ND	
P/PCB	AROCLOR-1254	1						
METAL	ANTIMONY, TOTAL	31						
	BARIUM, TOTAL	5500						
	BERYLLIUM, TOTAL	160						
	CADMIUM, TOTAL	39						
	CHROMIUM, TOTAL	230						
	LEAD, TOTAL	400						
	NICKEL, TOTAL	1600						
	SILVER, TOTAL	390						
	MERCURY, TOTAL	20						
	ARSENIC, TOTAL	.43						

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			4			
		PRA Description			PRA#4-FORMER F	RUSH CREEK	K DUMP	
		Sample Type			Normal Sample			
		Sample Id	SGA-ASU006-70001		SGA-ASB004-40001		SGA-ASB004-70001	
		Depth - ft bgs	Collected Date 06/25/98 06/ Laboratory Recra Amherst Re		0 - 1		2.5 - 2.5	
		Collected Date			06/23/98		06/23/98	
		Laboratory			Recra Amherst		Recra Amherst	
		Sample Collector			Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units MG/KG			MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800			ND		ND	
BNA	NAPHTHALENE	1600	ND		ND		ND	
	ACENAPHTHENE	4700	ND		ND		ND	
	FLUORENE	3100	ND		ND		ND	
	PHENANTHRENE	23000	ND		ND		ND	
	ANTHRACENE	23000	ND		ND		ND	
	FLUORANTHENE	3100	ND		ND		ND	
	PYRENE	2300	ND		ND		ND	
	BENZO(A)ANTHRACENE	.87	ND		ND		ND	
	CHRYSENE	87	ND		ND		ND	
	BENZO(B)FLUORANTHENE	.87	ND		ND		ND	
	BENZO(K)FLUORANTHENE	8.7	ND		ND		ND	
	BENZO(A)PYRENE	.087	ND		ND		ND	

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			4			
		PRA Description			PRA#4-FORMER F	RUSH CREEK	K DUMP	
		Sample Type			Normal Sample			
		Sample Id	SGA-ASU006-70001		SGA-ASB004-40001	I	SGA-ASB004-70001	-
		Depth - ft bgs	0 - 0		0 - 1		2.5 - 2.5	
		Collected Date	06/25/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		ND	
	BENZO(GHI)PERYLENE	2300	ND		ND		ND	
	INDENO(1,2,3-C,D)PYRENE	.87	ND		ND		ND	
P/PCB	AROCLOR-1254	1			0.098		ND	
METAL	ANTIMONY, TOTAL	31			ND		ND	
	BARIUM, TOTAL	5500			114		117	
	BERYLLIUM, TOTAL	160			ND		ND	
	CADMIUM, TOTAL	39			12.6		10.0	
	CHROMIUM, TOTAL	230			12.6 J-		12.4 J-	
	LEAD, TOTAL	400			26.2 J+		ND	
	NICKEL, TOTAL	1600			15.8		15.5	
	SILVER, TOTAL	390			ND		ND	
	MERCURY, TOTAL	20			ND		ND	
	ARSENIC, TOTAL	.43			8.6 J-	X	8.1 J-	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB004-70002		SGA-ASB005-40001		SGA-ASB005-70001	
		Depth - ft bgs	5 - 5		0 - 1		2 - 2	
		Collected Date	06/22/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800	ND		ND		ND	
BNA	NAPHTHALENE	1600	ND		ND		ND	
	ACENAPHTHENE	4700	ND		ND		ND	
	FLUORENE	3100	ND		ND		ND	
	PHENANTHRENE	23000	ND		ND		11	
	ANTHRACENE	23000	ND		ND		3.4 J	
	FLUORANTHENE	3100	ND		ND		32	
	PYRENE	2300	ND		ND		25	
	BENZO(A)ANTHRACENE	.87	ND		ND		11	X
	CHRYSENE	87	ND		ND		9.1	
	BENZO(B)FLUORANTHENE	.87	ND		ND		9.9	X
	BENZO(K)FLUORANTHENE	8.7	ND		ND		11	X
	BENZO(A)PYRENE	.087	ND		ND		5.9 J	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB004-70002		SGA-ASB005-40001	l	SGA-ASB005-70001	
		Depth - ft bgs	5 - 5		0 - 1		2 - 2	
		Collected Date	06/22/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		ND	
	BENZO(GHI)PERYLENE	2300	ND		ND		1.3 J	
	INDENO(1,2,3-C,D)PYRENE	.87	ND		ND		1.6 J	X
P/PCB	AROCLOR-1254	1	0.052		0.059		1.8	X
METAL	ANTIMONY, TOTAL	31	ND		ND		ND	
	BARIUM, TOTAL	5500	120		90.5		254	
	BERYLLIUM, TOTAL	160	ND		ND		ND	
	CADMIUM, TOTAL	39	12.7		13.2		33.2	
	CHROMIUM, TOTAL	230	12.5 J-		15.8 J-		30.2 J-	
	LEAD, TOTAL	400	ND		25.2 J+		252 J+	
	NICKEL, TOTAL	1600	17.3		19.2		27.1	
	SILVER, TOTAL	390	ND		ND		ND	
	MERCURY, TOTAL	20	ND		ND		2.1	
	ARSENIC, TOTAL	.43	10.2 J-	X	24.8 J-	X	10.0 J-	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB005-70002		SGA-ASB006-40001	1	SGA-ASB006-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector Civil + Environment		al Cons. Civil + Environmenta		tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	3.6		ND		ND	
	XYLENES (TOTAL)	1000000	9.7		ND		ND	
	ACETONE	7800	ND		ND		ND	
BNA	NAPHTHALENE	1600	210		ND		ND	
	ACENAPHTHENE	4700	ND		ND		ND	
	FLUORENE	3100	62		ND		ND	
	PHENANTHRENE	23000	280		ND		ND	
	ANTHRACENE	23000	92		ND		ND	
	FLUORANTHENE	3100	260		ND		1.4 J	
	PYRENE	2300	240		ND		ND	
	BENZO(A)ANTHRACENE	.87	150	X	ND		ND	
	CHRYSENE	87	130	X	ND		ND	
	BENZO(B)FLUORANTHENE	.87	120	X	0.53		2.0 J	X
	BENZO(K)FLUORANTHENE	8.7	75	X	0.60		1.9 J	
	BENZO(A)PYRENE	.087	110	X	ND		ND	

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB005-70002	,	SGA-ASB006-40001	l	SGA-ASB006-70001	Į
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	tal Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		ND	
	BENZO(GHI)PERYLENE	2300	79		ND		0.66 J	
	INDENO(1,2,3-C,D)PYRENE	.87	86	X	ND		ND	
P/PCB	AROCLOR-1254	1	12	X	0.043		0.70 J	
METAL	ANTIMONY, TOTAL	31	2140 J-	X	ND		ND	
	BARIUM, TOTAL	5500	842		97.4		82.2	
	BERYLLIUM, TOTAL	160	ND		ND		ND	
	CADMIUM, TOTAL	39	113	X	14.0		11.9	
	CHROMIUM, TOTAL	230	71.6 J-		11.2 J-		12.6 J-	
	LEAD, TOTAL	400	1650 J+	X	56.5 J+		55.8 J+	
	NICKEL, TOTAL	1600	85.7		24.4		26.0	
	SILVER, TOTAL	390	ND		42.0 J-		ND	
	MERCURY, TOTAL	20	1.3		0.38		0.31	
	ARSENIC, TOTAL	.43	38.9 J-	X	13.6 J-	X	10.9 J-	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			5			
		PRA Description			PRA #5-FORMER	DUMP		
		Sample Type			Normal Sample			
		Sample Id	SGA-ASB006-70002		SGA-ASB007-40001		SGA-ASB007-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800	0.15 J		ND		ND	
BNA	NAPHTHALENE	1600	ND		ND		ND	
	ACENAPHTHENE	4700	ND		ND		ND	
	FLUORENE	3100	ND		ND		ND	
	PHENANTHRENE	23000	ND		ND		ND	
	ANTHRACENE	23000	ND		ND		ND	
	FLUORANTHENE	3100	ND		ND		ND	
	PYRENE	2300	ND		ND		ND	
	BENZO(A)ANTHRACENE	.87	ND		ND		ND	
	CHRYSENE	87	ND		ND		ND	
	BENZO(B)FLUORANTHENE	.87	ND		ND		ND	
	BENZO(K)FLUORANTHENE	8.7	ND		ND		ND	
	BENZO(A)PYRENE	.087	ND		ND		ND	

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			5			
		PRA Description			PRA #5-FORMER	DUMP		
		Sample Type			Normal Sample			
		Sample Id	SGA-ASB006-70002		SGA-ASB007-40001		SGA-ASB007-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	al Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		ND	
	BENZO(GHI)PERYLENE	2300	ND		ND		ND	
	INDENO(1,2,3-C,D)PYRENE	.87	ND		ND		ND	
P/PCB	AROCLOR-1254	1	ND		ND		ND	
METAL	ANTIMONY, TOTAL	31	ND		ND		ND	
	BARIUM, TOTAL	5500	98.6		86.1		116	
	BERYLLIUM, TOTAL	160	ND		ND		ND	
	CADMIUM, TOTAL	39	9.6		13.0		5.3	
	CHROMIUM, TOTAL	230	9.6 J-		11.4 J-		5.4 J-	
	LEAD, TOTAL	400	ND		ND		34.1 J+	
	NICKEL, TOTAL	1600	ND		16.7		ND	
	SILVER, TOTAL	390	ND		ND		ND	
	MERCURY, TOTAL	20	ND		ND		ND	
	ARSENIC, TOTAL	.43	7.9 J-	X	11.4 J-	X	4.5 J-	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB007-70002		SGA-ASB008-40001	L	SGA-ASB008-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environmental Cons.		Civil + Environmental Cons.		Civil + Environmental Cons.	
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800	ND		ND		ND	
BNA	NAPHTHALENE	1600	ND		1.1 J		ND	
	ACENAPHTHENE	4700	ND		ND		ND	
	FLUORENE	3100	ND		0.44 J		ND	
	PHENANTHRENE	23000	ND		3.4		ND	
	ANTHRACENE	23000	ND		0.95 J		ND	
	FLUORANTHENE	3100	ND		4.2		ND	
	PYRENE	2300	ND		3.8		ND	
	BENZO(A)ANTHRACENE	.87	ND		2.6	X	ND	
	CHRYSENE	87	ND		2.2		ND	
	BENZO(B)FLUORANTHENE	.87	ND		3.0	X	ND	
	BENZO(K)FLUORANTHENE	8.7	ND		1.6 J		ND	
	BENZO(A)PYRENE	.087	ND		2.4	X	ND	

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB007-70002		SGA-ASB008-40001		SGA-ASB008-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environment	tal Cons.	Civil + Environment	al Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		0.39 J	X	ND	
	BENZO(GHI)PERYLENE	2300	ND		2.2		ND	
	INDENO(1,2,3-C,D)PYRENE	.87	ND		2.1	X	ND	
P/PCB	AROCLOR-1254	1	ND		ND		ND	
METAL	ANTIMONY, TOTAL	31	ND		ND		ND	
	BARIUM, TOTAL	5500	72.7		94.2		99.2	
	BERYLLIUM, TOTAL	160	ND		ND		ND	
	CADMIUM, TOTAL	39	13.5		32.0		7.9	
	CHROMIUM, TOTAL	230	14.7 J-		10.0 J-		8.1 J-	
	LEAD, TOTAL	400	ND		30.0 J+		ND	
	NICKEL, TOTAL	1600	19.9		14.5		ND	
	SILVER, TOTAL	390	ND		ND		ND	
	MERCURY, TOTAL	20	ND		ND		ND	
	ARSENIC, TOTAL	.43	13.8 J-	X	12.7 J-	X	7.5 J-	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB008-70002		SGA-ASB009-40001		SGA-ASB009-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800	ND		ND		ND	
BNA	NAPHTHALENE	1600	ND		ND		ND	
	ACENAPHTHENE	4700	ND		ND		ND	
	FLUORENE	3100	ND		ND		ND	
	PHENANTHRENE	23000	ND		ND		ND	
	ANTHRACENE	23000	ND		ND		ND	
	FLUORANTHENE	3100	ND		ND		ND	
	PYRENE	2300	ND		ND		ND	
	BENZO(A)ANTHRACENE	.87	ND		ND		ND	
	CHRYSENE	87	ND		0.42		ND	
	BENZO(B)FLUORANTHENE	.87	ND		ND		ND	
	BENZO(K)FLUORANTHENE	8.7	ND		ND		ND	
	BENZO(A)PYRENE	.087	ND		ND		ND	

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB008-70002		SGA-ASB009-40001	l	SGA-ASB009-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		ND	
	BENZO(GHI)PERYLENE	2300	ND		ND		ND	
	INDENO(1,2,3-C,D)PYRENE	.87	ND		ND		ND	
P/PCB	AROCLOR-1254	1	ND		ND		ND	
METAL	ANTIMONY, TOTAL	31	ND		ND		ND	
	BARIUM, TOTAL	5500	63.7		81.3		122	
	BERYLLIUM, TOTAL	160	ND		ND		ND	
	CADMIUM, TOTAL	39	11.6		20.7		7.4	
	CHROMIUM, TOTAL	230	9.5 J-		10.2 J-		7.4 J-	
	LEAD, TOTAL	400	ND		22.9 J+		101 J+	
	NICKEL, TOTAL	1600	15.6		17.2		ND	
	SILVER, TOTAL	390	ND		ND		ND	
	MERCURY, TOTAL	20	ND		ND		ND	
	ARSENIC, TOTAL	.43	11.9 J-	X	12.2 J-	X	9.5 J-	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB009-70002		SGA-ASB011-40001	[	SGA-ASB011-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Result Units MG/KG  Action Level Result Flag		tal Cons.	Civil + Environmen	tal Cons.	l Cons. Civil + Environment	
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		0.006		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
ļ	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800	ND		ND		ND	
BNA	NAPHTHALENE	1600	ND		ND		ND	
	ACENAPHTHENE	4700	ND		ND		0.48	
	FLUORENE	3100	ND		ND		ND	
	PHENANTHRENE	23000	ND		1.2		2.6	
	ANTHRACENE	23000	ND		ND		0.81	
	FLUORANTHENE	3100	ND		1.7		3.7	
	PYRENE	2300	ND		1.8		5.0	
	BENZO(A)ANTHRACENE	.87	ND		0.84		2.6	X
	CHRYSENE	87	ND		0.81		2.7	
	BENZO(B)FLUORANTHENE	.87	ND		1.0	X	3.2	X
	BENZO(K)FLUORANTHENE	8.7	ND		ND		1.6	
	BENZO(A)PYRENE	.087	ND		0.70	X	2.8	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASB009-70002		SGA-ASB011-40001		SGA-ASB011-70001	
		Depth - ft bgs	5 - 5		0 - 1		2.5 - 2.5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		0.42	X
	BENZO(GHI)PERYLENE	2300	ND		ND		1.8	
	INDENO(1,2,3-C,D)PYRENE	.87	ND		0.42		1.9	X
P/PCB	AROCLOR-1254	1	ND		ND		ND	
METAL	ANTIMONY, TOTAL	31	ND		ND		ND	
	BARIUM, TOTAL	5500	90.2		84.5		107	
	BERYLLIUM, TOTAL	160	ND		ND		ND	
	CADMIUM, TOTAL	39	9.0		14.6		29.9	
	CHROMIUM, TOTAL	230	8.4 J-		9.8 J-		14.6 J-	
	LEAD, TOTAL	400	ND		ND		33.6 J+	
	NICKEL, TOTAL	1600	12.2		14.3		16.6	
	SILVER, TOTAL	390	ND		ND		ND	
	MERCURY, TOTAL	20	ND		ND		ND	
	ARSENIC, TOTAL	.43	8.2 J-	X	12.2 J-	X	12.3 J-	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			6			
		PRA Description			PRA#6-SEPTIC SY	STEM		
		Sample Type			Field Duplicate (Re	p)	Normal Sample	
		Sample Id         SGA-ASB011-70002         SGA-ASU007-71001         SGA-AS           Depth - ft bgs         5 - 5         5 - 5         5 - 5		SGA-ASU007-70001	Į.			
		Depth - ft bgs	5 - 5		5 - 5		5 - 5	
		Collected Date	06/23/98		06/24/98		06/24/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800	ND					
BNA	NAPHTHALENE	1600	ND					
	ACENAPHTHENE	4700	ND					
	FLUORENE	3100	ND					
	PHENANTHRENE	23000	ND					
	ANTHRACENE	23000	ND					
	FLUORANTHENE	3100	ND					
	PYRENE	2300	ND					
	BENZO(A)ANTHRACENE	.87	ND					
	CHRYSENE	87	ND					
	BENZO(B)FLUORANTHENE	.87	ND					
	BENZO(K)FLUORANTHENE	8.7	ND					
	BENZO(A)PYRENE	.087	ND					1

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			6				
		PRA Description			PRA#6-SEPTIC SYSTEM				
		Sample Type	mple Id SGA-ASB011-70002		Field Duplicate (Rep) SGA-ASU007-71001 5 - 5		Normal Sample SGA-ASU007-70001 5 - 5		
		Sample Id							
		Depth - ft bgs							
		Collected Date	06/23/98		06/24/98		06/24/98		
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst		
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.	
		Result Units	MG/KG		MG/KG		MG/KG		
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*	
	DIBENZO(A,H)ANTHRACENE	.087	ND						
	BENZO(GHI)PERYLENE	2300	ND						
	INDENO(1,2,3-C,D)PYRENE	.87	ND						
P/PCB	AROCLOR-1254	1	ND		ND		ND		
METAL	ANTIMONY, TOTAL	31	ND						
	BARIUM, TOTAL	5500	90.3						
	BERYLLIUM, TOTAL	160	ND						
	CADMIUM, TOTAL	39	11.5						
	CHROMIUM, TOTAL	230	11.6						
	LEAD, TOTAL	400	ND						
	NICKEL, TOTAL	1600	15.4						
	SILVER, TOTAL	390	ND						
	MERCURY, TOTAL	20	ND						
	ARSENIC, TOTAL	.43	11.0	X					

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			7			
		PRA Description			PRA#7-RUSH CRE	EK		
		Sample Type			Normal Sample			
		Depth - ft bgs 5 - 5 0 - 0		SGA-ASD002-30001	Į.			
		Depth - ft bgs	5 - 5		0 - 0		0 - 0	
		Collected Date	06/24/98		06/26/98		06/26/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800			ND		ND	
BNA	NAPHTHALENE	1600			ND		ND	
	ACENAPHTHENE	4700			ND		ND	
	FLUORENE	3100			ND		ND	
	PHENANTHRENE	23000			ND		ND	
	ANTHRACENE	23000			ND		ND	
	FLUORANTHENE	3100			ND		ND	
	PYRENE	2300			ND		ND	
	BENZO(A)ANTHRACENE	.87			ND		ND	
	CHRYSENE	87			ND		ND	
	BENZO(B)FLUORANTHENE	.87			ND		ND	
	BENZO(K)FLUORANTHENE	8.7			ND		ND	
	BENZO(A)PYRENE	.087			ND		ND	1

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			7				
		PRA Description			PRA#7-RUSH CRE	EK			
		Sample Type			Normal Sample				
		Sample Id	SGA-ASU008-70001		SGA-ASD001-30001		SGA-ASD002-30001		
		Depth - ft bgs	5 - 5		0 - 0		0 - 0		
		Collected Date	06/24/98		06/26/98		06/26/98		
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst		
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	al Cons.	
		Result Units	MG/KG		MG/KG		MG/KG		
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*	
	DIBENZO(A,H)ANTHRACENE	.087			ND		ND		
	BENZO(GHI)PERYLENE	2300			ND		ND		
	INDENO(1,2,3-C,D)PYRENE	.87			ND		ND		
P/PCB	AROCLOR-1254	1	ND		ND		ND		
METAL	ANTIMONY, TOTAL	31			ND		ND		
	BARIUM, TOTAL	5500			85.4 J		45.8		
	BERYLLIUM, TOTAL	160			2.4 J		1.2		
	CADMIUM, TOTAL	39			21.0 J		9.7 J-		
	CHROMIUM, TOTAL	230			10.5 J		6.7 J-		
	LEAD, TOTAL	400			ND		ND		
	NICKEL, TOTAL	1600			38.6 J		20.0		
	SILVER, TOTAL	390			ND		ND		
	MERCURY, TOTAL	20			ND		ND		
	ARSENIC, TOTAL	.43			11.7 J	X	6.8 J-	X	

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA	8					
		PRA Description	PRA#8-FRAC TANI	K DRAINAGI	E CHANNEL			
		Sample Type	Field Duplicate (Rep	)	Normal Sample			
		Sample Id	SGA-ASD004-31001		SGA-ASD004-30001		SGA-ASD005-30001	l
		Depth - ft bgs	0 - 0		0 - 0		0 - 0	
		Collected Date	06/25/98		06/25/98		06/25/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800	ND		ND		ND	
BNA	NAPHTHALENE	1600	ND		ND		ND	
	ACENAPHTHENE	4700	ND		ND		ND	
	FLUORENE	3100	ND		ND		ND	
	PHENANTHRENE	23000	ND		ND		ND	
	ANTHRACENE	23000	ND		ND		ND	
	FLUORANTHENE	3100	ND		ND		ND	
	PYRENE	2300	ND		ND		ND	
	BENZO(A)ANTHRACENE	.87	ND		ND		ND	
	CHRYSENE	87	ND		ND		ND	
	BENZO(B)FLUORANTHENE	.87	ND		ND		ND	
	BENZO(K)FLUORANTHENE	8.7	ND		ND		ND	
	BENZO(A)PYRENE	.087	ND		ND		ND	

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA	8							
		PRA Description	PRA#8-FRAC TANK DRAINAGE CHANNEL Field Duplicate (Pen) Normal Sample							
		Sample Type	Field Duplicate (Rep	)	Normal Sample					
		1		SGA-ASD005-30001						
		Depth - ft bgs	0 - 0		0 - 0		0 - 0			
		Collected Date	06/25/98		06/25/98		06/25/98			
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst			
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	tal Cons.		
		Result Units	MG/KG		MG/KG		MG/KG			
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*		
	DIBENZO(A,H)ANTHRACENE	.087	ND		ND		ND			
	BENZO(GHI)PERYLENE	2300	ND		ND		ND			
	INDENO(1,2,3-C,D)PYRENE	.87	ND		ND		ND			
P/PCB	AROCLOR-1254	1	ND		ND		ND			
METAL	ANTIMONY, TOTAL	31	ND		ND		ND			
	BARIUM, TOTAL	5500	36.4		30.4		56.5			
	BERYLLIUM, TOTAL	160	ND		ND		ND			
	CADMIUM, TOTAL	39	11.2 J-		17.1 J-		15.0 J-			
	CHROMIUM, TOTAL	230	7.5 J-		8.9 J-		26.1 J-			
	LEAD, TOTAL	400	ND		ND		ND			
	NICKEL, TOTAL	1600	ND		ND		19.8			
	SILVER, TOTAL	390	ND		ND		ND			
	MERCURY, TOTAL	20	ND		ND		ND			
	ARSENIC, TOTAL	.43	12.7 J	X	23.4 J	X	19.4 J-	X		

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			9			
		PRA Description			PRA#9-REGULAT	OR LRP		
		Sample Type         Field Duplicate (Rep)           Sample Id         SGA-ASD006-30001         SGA-ASB010-41001         SGA-ASB010-41001						
		Sample Id	SGA-ASD006-30001		SGA-ASB010-41001	I	SGA-ASB010-71002	
		Depth - ft bgs	epth - ft bgs 0 - 0 0 - 1		5 - 5			
		Collected Date	06/25/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800	ND					
BNA	NAPHTHALENE	1600	ND					
	ACENAPHTHENE	4700	ND					
	FLUORENE	3100	ND					
	PHENANTHRENE	23000	ND					
	ANTHRACENE	23000	ND					
	FLUORANTHENE	3100	ND					
	PYRENE	2300	ND					
	BENZO(A)ANTHRACENE	.87	ND					
	CHRYSENE	87	ND					
	BENZO(B)FLUORANTHENE	.87	ND					
	BENZO(K)FLUORANTHENE	8.7	ND					
	BENZO(A)PYRENE	.087	ND					

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			9			
		PRA Description			PRA#9-REGULAT	OR LRP		
		Sample Type			Field Duplicate (Re	p)		
		Sample Id			SGA-ASB010-71002			
		Depth - ft bgs	0 - 0		0 - 1		5 - 5	
		Collected Date	06/25/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmental Cons. MG/KG	
		Result Units	MG/KG		MG/KG			
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087	ND					
	BENZO(GHI)PERYLENE	2300	ND					
	INDENO(1,2,3-C,D)PYRENE	.87	ND					
P/PCB	AROCLOR-1254	1	ND		ND		0.050	
METAL	ANTIMONY, TOTAL	31	ND					
	BARIUM, TOTAL	5500	95.5 J					
	BERYLLIUM, TOTAL	160	ND					
	CADMIUM, TOTAL	39	16.1 J					
	CHROMIUM, TOTAL	230	11.9 J					
	LEAD, TOTAL	400	ND					
	NICKEL, TOTAL	1600	28.9 J					
	SILVER, TOTAL	390	ND					
	MERCURY, TOTAL	20	ND					
	ARSENIC, TOTAL	.43	9.6 J	X				

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

PRA

		I KA						
		PRA Description						
		Sample Type	Normal Sample					
		Sample Id	SGA-ASB010-40001		SGA-ASB010-70001	l	SGA-ASB010-70002	2
		Depth - ft bgs	0 - 1		2.5 - 2.5 06/23/98		5 - 5	
		Collected Date	06/23/98		06/23/98		06/23/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	tal Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800						
BNA	NAPHTHALENE	1600						
	ACENAPHTHENE	4700						
	FLUORENE	3100						
	PHENANTHRENE	23000						
	ANTHRACENE	23000						
	FLUORANTHENE	3100						
	PYRENE	2300						
	BENZO(A)ANTHRACENE	.87						
	CHRYSENE	87						
	BENZO(B)FLUORANTHENE	.87						
	BENZO(K)FLUORANTHENE	8.7						
	BENZO(A)PYRENE	.087						

#### Notes:

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type	Normal Sample					
		Sample Id	SGA-ASB010-40001		SGA-ASB010-70001 2.5 - 2.5 06/23/98		SGA-ASB010-70002	
		Depth - ft bgs	0 - 1				5 - 5 06/23/98	
		Collected Date	06/23/98					
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environmenta	al Cons.	Civil + Environment	tal Cons.	Civil + Environment	al Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087						
	BENZO(GHI)PERYLENE	2300						
	INDENO(1,2,3-C,D)PYRENE	.87						
P/PCB	AROCLOR-1254	1	ND		ND		ND	
METAL	ANTIMONY, TOTAL	31						
	BARIUM, TOTAL	5500						
	BERYLLIUM, TOTAL	160						
	CADMIUM, TOTAL	39						
	CHROMIUM, TOTAL	230						
	LEAD, TOTAL	400						
	NICKEL, TOTAL	1600						
	SILVER, TOTAL	390						
	MERCURY, TOTAL	20						
	ARSENIC, TOTAL	.43						

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA	10					
		PRA Description	PRA#10-FORMER	PIPEYARD				
		Sample Type	Field Duplicate (Rep	<b>o</b> )	Normal Sample			
		Sample Id	SGA-ASS001-41001		SGA-ASS001-40001		SGA-ASS002-40001	
		Depth - ft bgs	0 - 1		0 - 1		0 - 1	
		Collected Date	06/24/98		06/24/98			
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800						
BNA	NAPHTHALENE	1600						
	ACENAPHTHENE	4700						
	FLUORENE	3100						
	PHENANTHRENE	23000						
	ANTHRACENE	23000						
	FLUORANTHENE	3100						
	PYRENE	2300						
	BENZO(A)ANTHRACENE	.87						
	CHRYSENE	87						
	BENZO(B)FLUORANTHENE	.87						
	BENZO(K)FLUORANTHENE	8.7						
	BENZO(A)PYRENE	.087						

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA	10						
		PRA Description	PRA#10-FORMER I	PIPEYARD					
		Sample Type	Field Duplicate (Rep	)	Normal Sample				
		Sample Id	SGA-ASS001-41001		SGA-ASS001-40001				
		Depth - ft bgs	0 - 1		0 - 1		0 - 1		
		Collected Date	06/24/98		06/24/98		06/24/98 Recra Amherst		
		Laboratory	Recra Amherst		Recra Amherst				
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environment	al Cons.	
		Result Units	MG/KG		MG/KG		MG/KG		
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*	
	DIBENZO(A,H)ANTHRACENE	.087							
	BENZO(GHI)PERYLENE	2300							
	INDENO(1,2,3-C,D)PYRENE	.87							
P/PCB	AROCLOR-1254	1	ND		ND		ND		
METAL	ANTIMONY, TOTAL	31							
	BARIUM, TOTAL	5500							
	BERYLLIUM, TOTAL	160							
	CADMIUM, TOTAL	39							
	CHROMIUM, TOTAL	230							
	LEAD, TOTAL	400							
	NICKEL, TOTAL	1600							
	SILVER, TOTAL	390							
	MERCURY, TOTAL	20							
	ARSENIC, TOTAL	.43							

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASS003-40001		SGA-ASS004-40001	-	SGA-ASS005-40001	
		Depth - ft bgs	0 - 1		0 - 1		0 - 1	
		Collected Date	06/24/98		06/24/98		06/24/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800						
BNA	NAPHTHALENE	1600						
	ACENAPHTHENE	4700						
	FLUORENE	3100						
	PHENANTHRENE	23000						
	ANTHRACENE	23000						
	FLUORANTHENE	3100						
	PYRENE	2300						
	BENZO(A)ANTHRACENE	.87						
	CHRYSENE	87						
	BENZO(B)FLUORANTHENE	.87						
	BENZO(K)FLUORANTHENE	8.7						
	BENZO(A)PYRENE	.087						

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA						
		PRA Description						
		Sample Type						
		Sample Id	SGA-ASS003-40001		SGA-ASS004-40001		SGA-ASS005-40001	
		Depth - ft bgs	0 - 1		0 - 1		0 - 1	
		Collected Date	06/24/98		06/24/98		06/24/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environmenta	al Cons.	Civil + Environment	tal Cons.	Civil + Environment	al Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
	DIBENZO(A,H)ANTHRACENE	.087						
	BENZO(GHI)PERYLENE	2300						
	INDENO(1,2,3-C,D)PYRENE	.87						
P/PCB	AROCLOR-1254	1	ND		ND		ND	
METAL	ANTIMONY, TOTAL	31						
	BARIUM, TOTAL	5500						
	BERYLLIUM, TOTAL	160						
	CADMIUM, TOTAL	39						
	CHROMIUM, TOTAL	230						
	LEAD, TOTAL	400						
	NICKEL, TOTAL	1600						
	SILVER, TOTAL	390						
	MERCURY, TOTAL	20						
	ARSENIC, TOTAL	.43						

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

PRA

11

12

		1101			1**		1-2	
		PRA Description			PRA#11-CATCH BA	ASIN HEADW	PRA#12-DRY WEL	L
		Sample Type			Normal Sample		Normal Sample	
		Sample Id	SGA-ASS006-40001		SGA-ASD008-30001	Į.	SGA-ASD009-30001	
		Depth - ft bgs	0 - 1		0 - 0		0 - 0	
		Collected Date	06/24/98		06/26/98		06/26/98	
		Laboratory	Recra Amherst		Recra Amherst		Recra Amherst	
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.	Civil + Environmen	tal Cons.
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND		ND	
	ETHYL BENZENE	7800	ND		ND		ND	
	XYLENES (TOTAL)	1000000	ND		ND		ND	
	ACETONE	7800					ND	
BNA	NAPHTHALENE	1600			ND		ND	
	ACENAPHTHENE	4700			ND		1.1 J	
	FLUORENE	3100			ND		ND	
	PHENANTHRENE	23000			ND		26	
	ANTHRACENE	23000			ND		2.0 J	
	FLUORANTHENE	3100			ND		42	
	PYRENE	2300			ND		36	
	BENZO(A)ANTHRACENE	.87			ND		14	X
	CHRYSENE	87			ND		22	1
	BENZO(B)FLUORANTHENE	.87			ND		23	X
	BENZO(K)FLUORANTHENE	8.7			ND		13	X
	BENZO(A)PYRENE	.087			ND		15	X

## Notes:

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.

Table 4
Summary of Analytical Results

		PRA			11		12	
		PRA Description			PRA#11-CATCH B.	ASIN HEADW	PRA#12-DRY WEL	.L
		Sample Type			Normal Sample		Normal Sample	
		Sample Id	SGA-ASS006-40001		SGA-ASD008-30001	[	SGA-ASD009-30001	I
		Depth - ft bgs	0 - 1		0 - 0		0 - 0	
		Collected Date	06/24/98		06/26/98		06/26/98  Recra Amherst  Civil + Environmental Cons.  MG/KG	
		Laboratory	Recra Amherst		Recra Amherst			
		Sample Collector	Civil + Environment	al Cons.	Civil + Environmen	tal Cons.		
		Result Units	MG/KG		MG/KG			
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
_	DIBENZO(A,H)ANTHRACENE	.087			ND		3.7 J	X
	BENZO(GHI)PERYLENE	2300			ND		15	
	INDENO(1,2,3-C,D)PYRENE	.87			ND		14	X
P/PCB	AROCLOR-1254	1	ND		ND		ND	
METAL	ANTIMONY, TOTAL	31					ND	
	BARIUM, TOTAL	5500					72.9	
	BERYLLIUM, TOTAL	160					ND	
	CADMIUM, TOTAL	39					12.6 J-	
	CHROMIUM, TOTAL	230					16.0 J-	
	LEAD, TOTAL	400					80.0	
	NICKEL, TOTAL	1600					17.3	
	SILVER, TOTAL	390					ND	
	MERCURY, TOTAL	20					ND	
	ARSENIC, TOTAL	.43					10.4 J-	X

ND indicates Non-Detect

<sup>\* &</sup>quot;> CAL" equals "X" when reported value is above characterization action level for this locale.

J flag - Numerical value is an estimated quantity.



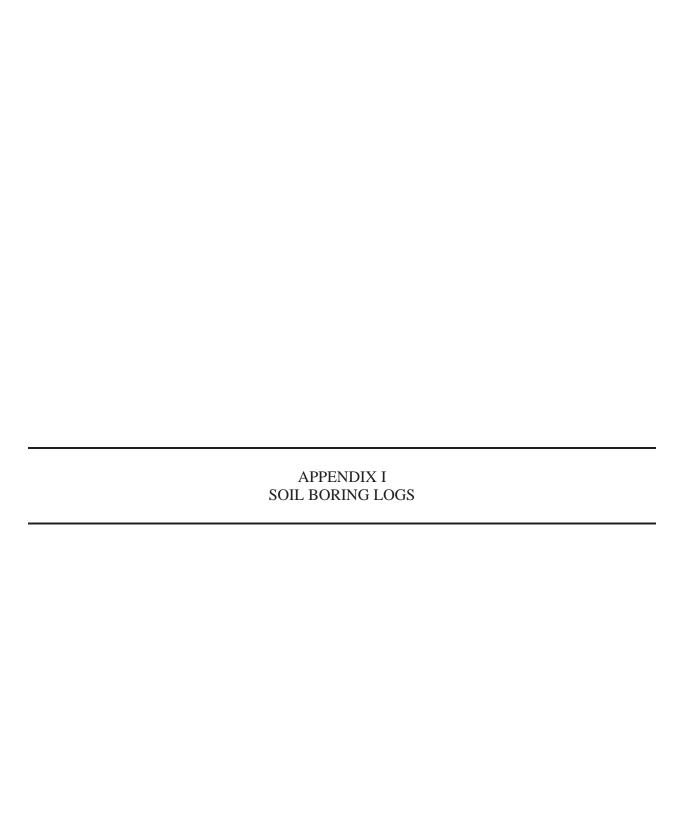
# SITE BACKGROUND CALCULATIONS

The following table presents the site background calculation for detected CWP Table 1 metals.

BACKGROUND SAMPLE	BARIUM (MG/KG)	CADMIUM (MG/KG)	CHROMIUM (MG/KG)	NICKEL (MG/KG)	ARSENIC (MG/KG)
SGA-ASU009-70001	76.6	12.6	9.9	16.5	11.9
SGA-ASU010-70001	100	13.9	11.9	21.0	13.8
SGA-ASU011-70001	14.4	6.6	5.2	5.6*	30.4
Total	191.0	33.1	27.0	43.1	56.1
Average	63.7	11.0	9.0	14.4	18.7
Multiplied by 2	127.4	22.0	18.0	28.8	37.4

## **NOTES:**

- 1. Calculations based on: "Data Collection and Evaluation, Human Health Risk Assessment Bulletin, No. 2., Supplemental Guidance to RAGs," Office Technical Services, U.S. EPA Region IV, October 1996.
- 2. \*: Half of laboratory reporting limit.



				5/5/			Columbia Gas Transmission Sugar Grove	JOB NO.: 98320-0280
C			nmenta	al Con		ts, Inc.	Area Office	LOG OF ASBOD4
(513	Cinc 3) 985-022	innati, OH 6 • (800)	759-5814	(412) 921	Pittsburgh -3402 • (8	), PA 00) 385-2324	Sugar Grove, Ohio	Sheet 1 of 1
LOG	GED BY	(: <mark>(b) (4)</mark>					GROUND SURFACE ELEVATION: N/A	
DRI	LLER: S	ubsurfac	e, Inc	- Tim Min	al		TOP OF CASING ELEVATION: N/A	
DAT	TE DAIL	LED: 6/2	3/98				INITIAL WATER LEVEL: N/A 11. BGS	DATE:
DRI	LL MET	HOD: Ged	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:
	HNU (ppm)	Recoyery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description	
			0-1			88	Brown, clayey SILT (ML) softening and moistening at depth	
	Lo	3,0					mostering at septi	
	1.0		2-3					
						22		
	1.0	(2,1)	4-5		5-	20	Death and (CD) bein provided and	
					0		Brawn, sand (SP), loose, unsorted, maist Boring terminated at 5 feet	
					15-			
-								

			/J-1	7.7			Columbia Gas Transmission	JOB NO.: 98320-0280
c	ivii & livi	Enviro	nmenta		sultani	ts, Inc.	Sugar Grove Area Office	LOG OF ASBOOS
(5)	Cinc 3) 985-022	innati, 01-	{ 759-5814		Pittsburgh		Sugar Grove, Ohlo	Sheet 1 of 1
Loc	GED BY	(b) (4)					GROUND SURFACE ELEVATION: N/A	
			ce, Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A	
DA	TE DRIL	LED: 6/2	23/98				INITIAL WATER LEVEL: N/A ft, BGS	DATE:
DRI	LL MET	HOD: Ge	oprobe –	4' Macr	o Sample	31	STATIC WATER LEVEL: N/A 1t. BGS	DATE:
	НМО (ррт)	Recovery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description	
			0-1			44	Brown, clay, med. stiff, softening and moistening with depth (FILL)	
	7.00	2.0	1.5-2			144		
	1/0					#++ +++ +++	Wood debris No Recovery	
	1.0	2.0	4.5-5		5-	持入	Wood debris (FILL) Tan, sand, odor, wet (FILL)	7
	15					+++	Black burned material (FILL)	
		10					Black, sandy clay, odor, wet to moist (FILL) No recovery	
-					1 3		Baring terminated at B feet	
H							bolling terminated at a fact	
					10-	1		
-						1		
						1		
					i	1 1		
					i e	1		
					15-	1		
-						1		
						1		
						]		
					20-			
M					LO.			
					25-			
					1-			
6								

				=/-/			Columbia Gas Transmission	JOB NO.: 9	8320-0280			
C	vii & i	Enviro	nmenta	al Con	sultant	ts, Inc.	Sugar Grove Area Office	LOG OF AS	Booe			
(513	Cinc 985-022	innati, QH 8 • (800)	759-5814	(412) 921	Pittsburgh -3402 ► (8	, PA 00) 385-2324	Sugar Grove, Ohio	Sheet 1 of 1				
LOG	GED BY	(b) (4)					GROUND SURFACE ELEVATION: N/A					
DRI	LLER: S	ubsurfac	e, Inc	- Tim Mih	al		TOP OF CASING ELEVATION: N/A					
DAT	E DAIL	LED: 6/2	3/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:				
ORI	LL MET	HOD: Ged	oprobe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:				
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample 1D	Depth (ft.)	Graphic Log	Materials Description					
			0-1			+++	Brown, clayey silt, moistening and softening all depth. Concrete and crushed gravel					
	Yes	3.5				+++	fragments through interval. Staining and slight odor at 4.5 feet (FILL)					
	0.1		2-3			+++ +++ +++ +++ +++ +++ +++ +++ +++	34.5-25, 43.4554 - 3354					
						+++						
	1,0	11,0	4-5		-	+++						
		F			5-		Black stained inclusion Boring terminated at 5 feet		11 17			
					10-							

				=#=/		4. 4	Columbia Gas Transmission	JOB NO.: 98320-0280
- CI	vil & I	Enviro	nmenta	d Cons	sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASBOOT
1000	Cinc	innati, OH			Pittsburgh		Sugar Grove, Ohlo	Sheet 1 of 1
1000		(:(b) (4)					GROUND SURFACE ELEVATION: N/A	
			e, Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A	
DAT	E DRIL	LED: 6/2	3/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:
DRI	LL MET	HOD: Geo	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:
	HNU (ppm)	Recovery (tt)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description	
			0-1			0000	Brown, sand-silt-gravel mix (GM), loose, wet	
	V.	3,0				0.69	Brown, silty SAND (SM), loose, very wet	
	1.0		2-3				Sectional service result assess (a) I make	
		H						
	0.1	1,0	4-5		5-			
П					~		Boring terminated at 5 feet	
		P						
					10-			
- 1						1		
-								
-1						4		
=						- 1		
H					15-	1		
-						4		
-								
F								
					200			
					20-			
					25-			
					2.0			

				=//			Columbia Gas Transmission	JOB NO.:	98320-028			
C	IVII & E	Enviro			sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASBOOR				
	Cinc	innati, OH			Pittsburgh							
LOG	GEO BY	(b) (4)					GROUND SURFACE ELEVATION: N/A					
DRI	LLER: S	ubsurfac	e. Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A					
DA"	TE DAIL	LED; 6/2	3/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:				
DAI	LL METH	400: Ged	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:				
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample ID	Depth (ff.)	Graphic Log	Materials Description					
			0-1	AG I		14	Brown, tine sandy loam, crushed gravel interspersed in 0-1 foot interval, loose					
	1.0.	3.5			1 - 5	44						
e e		l y	2-3		1		Brown, fine sandy clay, soft to medium stiff, wet					
-	1.0	1,0	4-5		1				1.7			
	110	1,63	4 3		5-	//4	Boring terminated at 5 feet	-				
					15-							
					25-							

Œ				=#=/			Columbia Gas Transmission	JOB NO.: 9832()-0280			
CIV	vil & E	Enviror			sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASBODS			
	Cine	innati. OH		1	Pittsburgh		Sugar Grove, Ohlo	Sheet 1 of 1			
1000000		(b) (4)			2.74,46.22.746		GROUND SURFACE ELEVATION: N/A				
		_	e, Inc	Tim Mih	al.		TOP OF CASING ELEVATION: N/A				
DAT	E DRIL	LED: 6/2	3/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:			
DRIL	L MET	HOD: Geo	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:			
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Leg	Materials Description				
			0-1			0000	Brown, sand-silt-gravel mix (GM), loose, wet				
	1.0	3,5	2-3			60	Brown, silty SAND (SM), loase, wet				
	1.0	1.0	4-5		5-		Boring terminated at 5 leet				
					10-						

Г				===/			Columbia Gas Transmission	JOB NO.: 98320-0280				
<u></u>	vil & I	Enviro			sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASBOTO				
	Cinc	innati, OH		100	Pittsburgh		Sugar Grove, Ohlo	Sheet 1 of 1				
		(b) (4)					GROUND SURFACE ELEVATION: N/A					
			e, Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A					
DAT	E DRIL	LED: 6/2	3/98				INITIAL WATER LEVEL; N/A ft. BGS	DATE:	3			
DRI	LL MET	HOD: Ged	oprobe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. 865	DATE:				
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample 1D	Depth (ft.)	Graphic Log	Materials Description		7			
			0-1			20	Brown, clayey silt (ML), loose, wet					
	1.0	3.2							Ì			
	1.0		2-3						d			
	- 4											
	1.0	1.0	4-5		5-	324		_	_			
							Boring terminated at 5 feet					
						1						
- 1												
H					10-				-			
									n			
									ηį			
					15-							
					100							
- 1												
H									H			
- 1						-						
H					20-	1			-			
-									1			
					3				-			
					25	i l						
					25-							
	L- 1		-14									

		-7	/J-/J	17			Columbia Gas Transmission	10B N	0.: 983	20-02			
C	vil & F	nviror			sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASBOIL					
(5)3	Cinc. 985-022	nnati, OH	759-5814	(412) 921-	Pittsburgh -3402 ■ 186	, PA 00) 385-2324	Sugar Grove, Ohlo	Sheet 1 of 1					
		(b) (4)					GROUND SURFACE ELEVATION: N/A						
		_	e, Inc	Tim Min	al		TOP OF CASING ELEVATION: N/A						
DAT	TE DRIL	LED: 6/2	3/98				INITIAL WATER LEVEL: N/A ft. B65	DA	TE:				
DRI	LL METH	<b>10D:</b> Geo	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DA	TE:				
	HNU (ppm)	Recovery (II)	Sample Interval	Sample 10	Depth (ft.)	Graphic Log	Materials Description						
	T		0-1			0000	Brown, sand-silt-gravel mix (GM), loose, wet						
	0,0	3.1				200	Brown, silty sand (SM), loose, wet						
			2-3				brown, siry sand tam, iddse, wet						
	1,0	1.0	4-5		3					-11			
-	1,62	1,0	4-5		5-	6/4/2/2	Boring terminated at 5 feet						
					-								
										Ш			
					3								
					10-								
					10-								
										Ш			
-1		1.5			15-				h II	ш			
										1			
					200								
					20-								
_					25-								

	1.0	/5-12	=/-/			Columbia Gas Transmission	JOB NO.: 98820-0280
ivii & i	Enviro			sultant	s, Inc.	Area Office	LOG OF ASUGO
Cinc 3) 885-022	innati, OF	759-5814	(412) 921-	Pittsburgh -3402 • (8	, PA 00) 385-2324	Sugar Grove, Ohio	Sheet 1 of 1
						GROUND SURFACE ELEVATION: N/A	
			Tim Mih	al		TOP OF CASING ELEVATION: N/A	
TE DRIL	LED: 6/	25/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:
ILL MET	HOD: Ge	oprobe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:
нии (ррм)	Recovery (f))	Sample Interval	Sample ID	Dep.th (ft.)	Graphic Log	Materials Description	
3.0	2.5				**************************************	Brown, coarse sand and gravel, well sorted, loose, wet (FILL)	
3.0	2.6			5-	+++ +++ +++ +++ +++ +++ +++ +++		
3.0	2.0	8.5-10		10-			
3,0	2.0				+++ +++ +++ +++ +++		
			1	15-			
					+++	Boring terminated at IB feet	
				20-			
				25-			
	Cinc 3) 885-022 GGED BY LLER: S TE DRIL LL METI 3.0	Cincinnati, 06 3) 885-0226 • (800) GGED BY: (b) (4) CLLER: Subsurfa TE DRILLED: 6/5 CLL METHOD: Ge  (III) AJANDAR  2.5 3.0 2.6 3.0 2.0	Cincinnati, OH 3) 885-0226 • (800) 758-5814  GGED BY: (D) (4)  CLLER: Subsurface, Inc TE DRILLED: 6/25/98  CLL METHOD: Geoprobe -  (wdd) NNH  2.5  3.0  2.6  3.0  2.0  8.5-10	Cincinnati, OH (412) 921- 3885-0228 • (800) 758-5814 (412) 921- 36GED BY: (b) (4)  CLLER: Subsurface, Inc Tim Mih TE DRILLED: 6/25/98  CLL METHOD: Geoprobe - 4' Macr  (wdd) NNH 2.5  3.0  2.5  3.0  2.6  3.0  2.0  8.5-10  3.0	Cincinnati, OH	SENVIRONMENTAL CONSULTANTS, Inc.   Cincinnati, OH   Pittsburgh, PA	IVII & Environmental Consultants, Inc. Cincinnati, OH Discretizate (Not) 758-5014 (42) 937-3402 (600) 385-2324  Signar Grove Area Office Sugar Grove, Ohio Signar Grove, Ohio Sugar Grove,

1		7		===			Columbia Gas Transmission	JOB NO.: 98320-0280			
-	IVII & F	Enviro			sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASUDO2			
17.5	Cinc	innati, OH			Pittsburgh		Sugar Grove, Ohio	Sheet 1 of 1			
		(b) (4)		0.04044	7.80-7	100000000000000000000000000000000000000	GROUND SURFACE ELEVATION: N/A				
			ce, Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A				
				and development of the control			INITIAL WATER LEVEL: N/A ft, BGS	DATE:			
DATE DRILLED: 6/25/98  DRILL METHOD: Geoprobe - 4' Macro Sampler							STATIC WATER LEVEL: N/A ft. BGS	DATE:			
	(mdd) (NH	Becovery (ft)	Sample Interval	Sample ID	Depth (ff.)	Graphic Log	Materials Description				
	2.0	a,e				+++ +++ ++++ ++++ ++++ ++++ ++++	Orange-brown, sandy gravel, loose, moist				
	2.0	0,8			5-	+++ +++ +++ +++ +++ +++ +++ +++					
	2.0	2.7	9-10		10-		Brown, coarse to medium SAND (SM), rounded pebbles, very loose, wet				
	2.0	2.5									
H		-			15-			- I			
					20-		Boring terminated at 18 feet				
-											

		177	77			Columbia Gas Transmission	JOB NO.: 98320-03
Civil 8	Enviro			ultant	s, Inc.	Sugar Grove Area Office	LOG OF ASUDD3
C	neinnati, OH 0228 • (800)		P	ittsburgh.	PA	Sugar Grove, Ohlo	Sheet 1 of 1
LOGGED	BY: (b) (4)					GROUND SURFACE ELEVATION: N/A	
DRILLER:	Subsurfac	e, Inc	Tim Miha	31		TOP OF CASING ELEVATION: N/A	
DATE DR	ILLED: 8/2	5/98				INITIAL WATER LEVEL; N/A ft. BGS	DATE:
ORILL ME	THOD: Ged		4' Macro	Sample	r	STATIC WATER LEVEL: N/A ft. BGS	DATE:
HNU (ppm)	Recovery (ft)	Sample Interval	Sample 10	Depth (ft.)	Graphic Log	Materials Description	
						Light gray silty SAND (SM), loose, slightly moist	
1.0.	3.0					Light brawn to brown medium SAND (SW), loose, maist to wet	
1.0	3.0	5-8		5-		Brown, clayey SAND (SC), soft, wet	
1,0	1.2						
				10-		Geoprobe refusal at 9,4 feet	

		n,		=/=/			Columbia Gas Transmission	JOB NO.: 98320-	0280	
Civi				I Con	sultant	ts, Inc.	Sugar Grove Area Office	LOG OF ASUQUE		
	Cinci	nnati, OH • (800) 7			Pittsburgh	), PA (00) 365-2324	Sugar Grove, Ohlo	Sheet 1 of 1		
OGGE	ED BY	(b) (4)					GROUND SURFACE ELEVATION: N/A			
			e, Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A			
ATE	DRILL	ED: 6/2	5/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:		
RILL	METH	10 <b>0:</b> Geo	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. 865	DATE:		
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description			
	1.0	Q,E				***	Brown, sandy gravel, stiff, moist (FILL)			
	(,0	3.0	5-8		5-	++++++++++++++++++++++++++++++++++++++				
H		1.2			1		Brown, SAND (SP), loose, wet		-	
	1.0			Į.	10-					
					15 -		Boring terminated at 12 leet			
					20-					
					25-					

			15	75/			Columbia Gas Transmission Sugar Grove	JOB NO.: 9832	0-0280		
C	vil & E	Enviro	nmenta	I Con	sultant	s, Inc.	Area Office	LOG OF ASUOC	)6		
(513	Cinc 985-022	Innati, OH a • (800)	759-5814	(412) 821	Pittsburgh -3402 • (8)	, PA 00) 385-2324	Sugar Grove, Ohlo	Sheet 1 of 1			
OG	GED BY	: (b) (4)					GROUND SURFACE ELEVATION: N/A				
RI	LLER: S	ubsurtac	e, Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A				
AT	E DRIL	LED: 6/2	5/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:			
ΗI	LL METH	HOD: Ged	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft, BGS	DATE:			
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description				
Ì						7+14	Light gray, sandy gravel, loose, slightly moist (FILL)				
	1.0	3.0				+++ +++ +++ +++ +++ +++ +++	Light brown, silt-sand-gravel mix, loose, moist (FILL)				
	1.0	3,3	5-6		5-	7+++++++++++++++++++++++++++++++++++++					
-	1.0	2.7			10-		Brown, well sorted, coarse SAND (SW), very loase, wet				
ł									1		
-							Boring terminated at 12 Teet				
					15-		During terminates at 12 feet				
					20-						
					25-						

			/J-8	===/			Columbia Gas Transmission	JOB NO.: 98320-0280
-	ivil & I	Enviro	nmenta	al Con	sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASUDO7
	Cinc	innati. OH			Pittsburgh		Sugar Grove, Ohlo	Sheet 1 of 1
-	GED BY	(b) (4)		li de la companya de			GROUND SURFACE ELEVATION: N/A	
DRI	LLER: S	ubsurfac	ce, Inc	- Tim Mih	al		TOP OF CASING ELEVATION: N/A	
DA	TE DRIL	LED: 6/2	24/98				INITIAL WATER LEVEL; N/A ft. BGS	DATE:
DRI	LL MET	HOD: Ge	oprobe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A #1. BGS	DATE;
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description	
To an	0.5	2.0				村	Brawn, clay-sand-gravel mix, loase to very loase (FILL)	
						+++	No recovery  Brown, clay-sand-gravel mix, loose to very loose (FILL)	
-		2.0	5-8		5-	+ +	Black, clay-sand-gravel mix, loose, organic odor, wet (FILL)	
Total St	0.5					野	No recovery  Boring terminated at 8 feet	
					10-			
					15-			
					20-			
n   1					25-			

				=/-/			Columbia Gas Transmission	JOB NO.: 98320-0280		
0	ivil & E	Enviro		/_	sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASU008 Sheet 1 of 1		
100	Cinc	Innati, OH		1	Pittsburgh	, PA 00) 385-2324	Sugar Grove, Ohlo			
LOC	GED BY	(b) (4)		71.7			GROUND SURFACE ELEVATION: N/A			
1300			e, Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A			
DA	TE DRIL	LED: 6/2	4/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:		
DRI	LL MET	HOD: Ged	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:		
	HMU (ppm)	Recovery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description			
	0.5	3.5	0,			# # + + + + + + + + +	Crushed rock (FILL)  Dark gray-brown, silty clay, loose, slightly moist (FILL)  Brown, silty CLAY (CL), soft, moist to wet			
							No recovery			
	0.5	2.0	5-B		5-		Light brown to tan, silty CLAY (CL), very soft, wet			
					10-					

			/A'-N.	=/=/		-	Columbia Gas Transmission	JOB NO.: 98320-0280
0	IVII & I	Enviro			sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASU009
	Cinc	innati, OH			Pittsburgh	. PA	Sugar Grove, Ohlo	Sheet 1 of 1
(5)3) 985-0228 • (800) 759-5814 (4)2) 921-3402 • (800) 365-2324 LOGGED BY:							GROUND SURFACE ELEVATION: N/A	
			e, Inc	- Tim Mih	ial		TOP OF CASING ELEVATION: N/A	
DA	TE DRIL	LED: 6/2	4/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:
DRI	LL MET	HOD: Ged	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample 10	Depth (ft.)	Graphic Log	Materials Description	
-	0.5	4.0				1//	Brown, silty CLAY (CL), loose, increasing moisture and lightening in color with depth becoming med. soft.	
	0.5	2.0	5-8		5-		Light brown, sandy CLAY (CL), maist to wet, very saft	
					15-			

								JOB NO.: 98320-028	No.: 98320-0280	
0	ivil & I	Enviror	nmenta	al Cons	sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASUDIO		
(6)	Cinc 3) 985-022	innati, OH 8 • (800)	759-5814	(412) 921	Pittsburgh -3402 • (8	, PA 00) 385-2324	Sugar Grove, Ohio	Sheet 1 of 1		
LOC	GED BY	(b) (4)					GROUND SURFACE ELEVATION: N/A			
		ubsurfac		Tim Mih	al		TOP OF CASING ELEVATION: N/A			
DA.	TE DRIL	LED: 6/2	4/98				INITIAL WATER LEVEL: N/A ff. BGS	DATE:		
DAI	LL MET	HOD: Geo	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A It. BGS	DATE:		
	HNU (ppm)	Recoyery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description			
	0.5	4.0					Dark brown, CLAY (CL), med. stiff, increasing in moisture with depth below I foot and slightly lightening in hue. Small percentage of silt and fine sand in intermittent intervals.			
-	0.5	2.0	5-6		5-		Brown, CLAY (CL), medium stiff, slightly moist		-	
-			5-0			1/4	Boring terminated at 6 feet			
					10-					
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-	ivil & E	Enviro	nmenta	al Cons	sultant	s, Inc.	Sugar Grove Area Office	LOG OF ASUOTI
	Cinc	innati, OH			Pittsburgh	, FA 00) 385-2324	Sugar Grove, Ohlo	Sheet 1 of 1
LOG	GED BY	r:(b) (4)					GROUND SURFACE ELEVATION: N/A	
DRI	LLER: S	ubsurfac	e. Inc	Tim Mih	al		TOP OF CASING ELEVATION: N/A	
DAT	TE DRIL	LED: 6/2	4/98				INITIAL WATER LEVEL: N/A ft. BGS	DATE:
DAI	LL MET	HOD: Ged	probe -	4' Macr	o Sample	er	STATIC WATER LEVEL: N/A ft. BGS	DATE:
	HNU (ppm)	Recovery (ft)	Sample Interval	Sample ID	Depth (ft.)	Graphic Log	Materials Description	
	0,5	4.0					Brown, slity CLAY (CL), dry, medium loose to medium dense  Greyish, light brown, SAND (SM) lens, slightly moist Light brown, clayey SILT (ML), stiff, slightly moist, gray mottles at 4 feet	
	0.5	2.0	5-8		5-	000	Light brown, clayey SILT (ML), gray mottles, very stiff Brown, slity SAND (SM), medium dense to medium loose, slightly moist Boring terminated at 8 feet	
					10-			
					15-			
					20-			
					25-			

# SUMMARY OF SURFACE SOIL BORINGS SUGAR GROVE AREA OFFICE SUGAR GROVE, OHIO

Location	Location	Analytes <sup>1</sup>	HNU PID (ppm)	Description <sup>2,3</sup>
ASS001	-12-	BTEX, PCBs	0.0	Brown, sandy loam (CL), no odor or staining
ASS002	12	BTEX, PCBs	0.0	6 inch brown, crushed gravel with silty sand component, 12 inch brown silty sand, loose to med dense, 2 inch light brown, sandy loam, med. stiff
ASS003	12	BTEX; PCBs	3.0	Brown, sandy loam (CL), med. dense, black unknown inclusion
ASS004	12	BTEX, PCBs	3.0	Brown, loam (CL), med. dense, dry, black inclusion at 3 inch bgs. no odor or staining
ASS005	12	BTEX; PCBs	0.0	Brown, loam (CL), dense, med. dry. no odors or staining
ASS006	12	BTEX: PCBs	0.0	Brown, silty CLAY (CL), stiff, med, dry to slightly moist at bottom of interval, no odors or staining
ASS007	PCB <sup>4</sup>	PCBs	0,0	Brown, loamy CLAY (CL), med. stiff, med. moist, some publics in matrix, no odors or staining, some small black inclusions
ASS008	PCB <sup>4</sup>	PCBs	0.0	Brown, silty clay, moist at bottom of interval, no odors or staining (FILL)
ASS009	PCB <sup>4</sup>	PCBs	0.0	6 inch crushed gravel; 12 inch brown, gray, and black, clayey fill material, no obvious stains, no odors (FILL)
ASS010	PCB <sup>4</sup>	PCBs	0.0	Cover is crushed gravel; brown, loose, gravelly fine SAND (SP), no odor, no staining

#### Notes:

- 1. For surface soil samples, the sample portion for PCB and metal analyses was collected from 0-0.5 foot and the sample portion for VOCs and SVOCs (if necessary) analyses was collected from 0.5-1 foot.
- Abbreviations in parentheses are the group symbols from the Unified Soil Classification System.
- 3. Samples collected by Geoprobe borings (Subsurface, Inc.) and logged by C. Scott Titzel (CEC)
- 4 PCB background random sample